

SEQUENCE LISTING

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<120> Crystal of a Truncated Protein Construct Containing a
 Coagulation Factor VIII C2 Domain in the Presence or
 Absence of a Bound Ligand and Methods of Use Thereof

<130> 14538A-005310US

<140> US 10/049,399
 <141> Not yet assigned

<150> US 60/148,907
 <151> 1999-08-13

<150> WO PCT/US00/22226
 <151> 2000-08-11

<160> 12

<170> PatentIn Ver. 2.1

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<210> 7

<211> 160

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:human Factor
VIII C2 domain

<220>

<221> VARIANT

<222> (20)

<223> Xaa = Ala (wild-type) or Pro (hemophilia A
mutation)

<220>

<221> VARIANT

<222> (35)

<223> Xaa = Lys (wild-type) or Gln, Leu or Gly
(hemophilia A mutations)

<220>

<221> VARIANT

<222> (54)

<223> Xaa = Pro (wild-type) or Cys (hemophilia A
mutation)

<220>
 <221> VARIANT
 <222> (66)
 <223> Xaa = Met (wild-type) or Val (hemophilia A mutation)

<220>
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 <222> (73)
 <223> Xaa = Thr (wild-type) or Ala (hemophilia A mutation)

<220>
 <221> VARIANT
 <222> (74)
 <223> Xaa = Gln (wild-type) or Arg (hemophilia A mutation)

<220>
 <221> VARIANT
 <222> (90)
 <223> Xaa = Ile (wild-type) or Thr (hemophilia A mutation)

<220>
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 <222> (111)
 <223> Xaa = Phe (wild-type) or Val (hemophilia A mutation)

<220>
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 <222> (128)
 <223> Xaa = Pro (wild-type) or Ser or Leu (hemophilia A mutation)

<220>
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 <223> Xaa = Arg (wild-type) or Gly or Cys (hemophilia A mutation)

<220>
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<220>
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<220>
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Gln Ile Thr Xaa Ser Ser Tyr Phe Thr Asn Met Phe Ala Thr Trp Ser
20 25 30

Pro Ser Xaa Ala Arg Leu His Leu Gln Gly Arg Ser Asn Ala Trp Arg
35 40 45

Pro Gln Val Asn Asn Xaa Lys Glu Trp Leu Gln Val Asp Phe Gln Lys
50 55 60

Thr Xaa Lys Val Thr Gly Val Thr Xaa Xaa Gly Val Lys Ser Leu Leu
65 70 75 80

Thr Ser Met Tyr Val Lys Glu Phe Leu Xaa Ser Ser Ser Gln Asp Gly
85 90 95

His Gln Trp Thr Leu Phe Phe Gln Asn Gly Lys Val Lys Val Xaa Gln
100 105 110

Gly Asn Gln Asp Ser Phe Thr Pro Val Val Asn Ser Leu Asp Pro Xaa
115 120 125

Leu Leu Thr Xaa Tyr Leu Xaa Ile His Pro Gln Ser Trp Val His Gln
130 135 140

Ile Ala Leu Xaa Met Glu Val Leu Xaa Cys Glu Ala Gln Asp Leu Tyr
145 150 155 160

<210> 8

<211> 160

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: murine Factor
VIII C2 domain

<400> 8

Ser Cys Ser Ile Pro Leu Gly Met Glu Ser Lys Val Ile Ser Asp Thr
1 5 10 15

Gln Ile Thr Ala Ser Ser Tyr Phe Thr Asn Met Phe Ala Thr Trp Ser
20 25 30

Pro Ser Gln Ala Arg Leu His Leu Gln Gly Arg Thr Asn Ala Trp Arg
35 40 45

Pro Gln Val Asn Asp Pro Lys Gln Trp Leu Gln Val Asp Leu Gln Lys
50 55 60

Thr Met Lys Val Thr Gly Ile Ile Thr Gln Gly Val Lys Ser Leu Phe
65 70 75 80

Thr Ser Met Phe Val Lys Glu Phe Leu Ile Ser Ser Ser Gln Asp Gly
85 90 95

His	His	Trp	Thr	Gln	Ile	Leu	Tyr	Asn	Gly	Lys	Val	Lys	Val	Phe	Gln	.
			100					105					110			
Gly	Asn	Gln	Asp	Ser	Ser	Thr	Pro	Met	Met	Asn	Ser	Leu	Asp	Pro	Pro	
	115						120					125				
Leu	Leu	Thr	Arg	Tyr	Leu	Arg	Ile	His	Pro	Gln	Ile	Trp	Glu	His	Gln	
	130					135					140					
Ile	Ala	Leu	Arg	Leu	Glu	Ile	Leu	Gly	Cys	Glu	Ala	Gln	Gln	Gln	Tyr	
145					150					155					160	

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 <211> 160
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: canine Factor
 VIII C2 domain

<400> 9																
Ser	Cys	Ser	Met	Pro	Leu	Gly	Met	Glu	Ser	Lys	Ala	Ile	Ser	Asp	Ala	
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Gln	Ile	Thr	Ala	Ser	Ser	Tyr	Leu	Ser	Ser	Met	Leu	Ala	Thr	Trp	Ser	
			20					25					30			
Pro	Ser	Gln	Ala	Arg	Leu	His	Leu	Gln	Gly	Arg	Thr	Asn	Ala	Trp	Arg	
		35					40					45				
Pro	Gln	Ala	Asn	Asn	Pro	Lys	Glu	Trp	Leu	Gln	Val	Asp	Phe	Arg	Lys	
	50					55					60					
Thr	Met	Lys	Val	Thr	Gly	Ile	Thr	Thr	Gln	Gly	Val	Lys	Ser	Leu	Leu	
65					70				75					80		
Ile	Ser	Met	Tyr	Val	Lys	Glu	Phe	Leu	Ile	Ser	Ser	Ser	Gln	Asp	Gly	
				85					90					95		
His	Asn	Trp	Thr	Leu	Phe	Leu	Gln	Asn	Gly	Lys	Val	Lys	Val	Phe	Gln	
			100					105					110			
Gly	Asn	Arg	Asp	Ser	Ser	Thr	Pro	Val	Arg	Asn	Arg	Leu	Glu	Pro	Pro	
	115						120					125				
Leu	Val	Ala	Arg	Tyr	Val	Arg	Leu	His	Pro	Gln	Ser	Trp	Ala	His	His	
	130					135					140					
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<210> 10
 <211> 160
 <212> PRT
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<220>

<223> Description of Artificial Sequence:porcine Factor
VIII C2 domain

<400> 10

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Gln Ile Thr Ala Ser Ser His Leu Ser Asn Ile Phe Ala Thr Trp Ser
              20              25              30
Pro Ser Gln Ala Arg Leu His Leu Gln Gly Arg Thr Asn Ala Trp Arg
              35              40              45
Pro Arg Val Ser Ser Ala Glu Glu Trp Leu Gln Val Asp Leu Gln Lys
              50              55              60
Thr Val Lys Val Thr Gly Ile Thr Thr Gln Gly Val Lys Ser Leu Leu
              65              70              75              80
Ser Ser Met Tyr Val Lys Glu Phe Leu Val Ser Ser Ser Gln Asp Gly
              85              90              95
Arg Arg Trp Thr Leu Phe Leu Gln Asp Gly His Thr Lys Val Phe Gln
              100              105              110
Gly Asn Gln Asp Ser Ser Thr Pro Val Val Asn Ala Leu Asp Pro Pro
              115              120              125
Leu Phe Thr Arg Tyr Leu Arg Ile His Pro Thr Ser Trp Ala Gln His
              130              135              140
Ile Ala Leu Arg Leu Glu Val Leu Gly Cys Glu Ala Gln Asp Leu Tyr
              145              150              155              160
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<210> 11

<211> 159

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:porcine Factor
V C2 domain

<400> 11

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Gly Cys Ser Thr Pro Leu Gly Met Glu Asn Gly Lys Ile Glu Asn Lys
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Gln Ile Thr Ala Ser Ser Phe Lys Lys Ser Trp Trp Gly Asp Tyr Trp
              20              25              30
Glu Pro Phe Arg Ala Arg Leu Asn Ala Gln Gly Arg Val Asn Ala Trp
              35              40              45
Gln Ala Lys Ala Asn Asn Asn Lys Gln Trp Leu Glu Ile Asp Leu Leu
              50              55              60
Lys Ile Lys Lys Ile Thr Ala Ile Ile Thr Gln Gly Cys Lys Ser Leu
              65              70              75              80
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Ser Ser Glu Met Tyr Val Lys Ser Tyr Thr Ile His Tyr Ser Glu Gln
85 90 95

Gly Val Glu Trp Lys Pro Tyr Arg Leu Lys Ser Ser Met Val Asp Lys
100 105 110

Ile Phe Glu Gly Asn Thr Asn Thr Lys Gly His Val Lys Asn Phe Phe
115 120 125

Asn Pro Pro Ile Ile Ser Arg Phe Ile Arg Val Ile Pro Lys Thr Trp
130 135 140

Asn Gln Ser Ile Ala Leu Arg Leu Glu Leu Phe Gly Cys Asp Ile
145 150 155

<210> 12
<211> 150
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:human Factor
VIII C1 domain

<400> 12
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Gln Ile Thr Ala Ser Gly Gln Tyr Gly Gln Trp Ala Pro Lys Leu Ala
20 25 30

Arg Leu His Tyr Ser Gly Ser Ile Asn Ala Trp Ser Thr Lys Glu Trp
35 40 45

Ile Lys Val Asp Leu Leu Ala Pro Met Ile Ile His Gly Ile Lys Thr
50 55 60

Gln Gly Ala Arg Gln Lys Phe Ser Ser Leu Tyr Ile Ser Gln Phe Ile
65 70 75 80

Ile Met Tyr Ser Leu Asp Gly His His Trp Gln Thr Tyr Arg Gly Asn
85 90 95

Ser Thr Gly Thr Leu Met Val Phe Gln Gly Asn Val Asp Ser Ser Gly
100 105 110

Ile Lys His Asn Ile Phe Asn Pro Pro Ile Ile Ala Arg Tyr Ile Arg
115 120 125

Leu His Pro Thr His Tyr Ser Ile Arg Ser Thr Leu Arg Met Glu Leu
130 135 140

Met Gly Cys Asp Leu Asn
145 150